

REMARKS

Claims 1, 3-7 and 9-12 were pending at the time of the Office Action. In this Amendment, claims 1 and 7 have been amended to clarify an aspect of the invention. Support is found in, for example, paragraphs [0028]-[0031] and [0036]-[0039] of the application-as-published, U.S. Publication No. 2004/0100647. No new matter has been introduced.

Drawing Objections

The drawings were objected to under 37 CFR 1.83(a). In particular, the Examiner asserted that the limitations of claims 1 and 7 regarding “setting representative points with respect to areas on the image data corresponding to respective ink key areas of a printing machine” is not illustrated in drawings and should be illustrated in drawings.

Contrary to the Examiner’s assertion, FIG. 7 illustrates an example of setting representative points on image data corresponding ink key areas of a printing machine. As disclosed in FIG. 7, one example of what is recited in claims 1 and 7, image data representing the printing machine is divided into seven areas corresponding to seven ink key areas of the printing machine 30. The seven representative points for the respective ink key area of the printing machine may be selected by the operator 19 or automatically by using a histogram as described in Japanese Patent Publication 2000-99699. (See paragraph [0031] of the application-as-published) Therefore, in view of the disclosure in FIG. 7 and paragraph [0031] of the application-as-published, withdrawal of the objection is respectfully requested.

Claim Rejections Under 35 U.S.C. §112

Claims 1 and 7 were rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement and the enablement requirement because the claims contain subject matter which was not described in the specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention, and which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1 and 7 were rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, the Examiner asserted that the limitations of claims 1 and 7 regarding “setting representative points with respect to areas on the image data corresponding to respective ink key areas of a printing machine” is not supported by the specification.

Contrary to the Examiner’s assertion, the specification, on paragraph [0030] and FIGS. 3 and 7 of the application-as-published, clearly teaches how to set the “representative points with respect to areas on the image data corresponding to respective ink key areas of a printing machine.”

The image data creating process includes “a PDL data creating process 1 for creating PDL data, and a platemaking data creating process 2 for creating platemaking data.” The PDL data creating process 1 sets the representative points with respect to areas on the image data corresponding to respective ink key areas of a printing machine. The image data representing the printing machine is divided into seven areas corresponding to seven ink key areas of the printing machine 30. The width and number of ink key areas on a printing layout are determined by a width of one ink key in a printing machine and the size (lateral width) of a printing paper or an image to be printed. FIG. 7 teaches an example of determination on the width and number of ink key areas, in which a width of a print (lateral width of printed image data) corresponds to a width

of seven keys in a printing machine. In addition, the paragraph [0031] of the application-as-published clearly teaches two alternatives to set the representative points, manual and automatic ways. That is, the seven representative points P1-P7 for the respective ink key area of the printing machine may be selected by the operator 19 or automatically by using a histogram as described in Japanese Patent Publication 2000-99699.

As addressed above, the written description and drawings fully teaches type and size of representative points and ways to set the representative points. Claims 1 and 7 aptly recites the above addressed subject matter. Therefore, the rejections are respectfully traversed.

Claim Rejections Under 35 U.S.C. § 103

Claims 7 and 9-10 were rejected under 35 U.S.C. §103 as being unpatentable over Akiyama (EP 0322879 A2, hereinafter “Akiyama”) in view of Doherty (U.S. Patent No. 5,224,421, hereinafter “Doherty”). Claims 1 and 3-4 were rejected under 35 U.S.C. §103 as being unpatentable over Shiraishi (U.S. Publication No. 2001/0038388, hereinafter “Shiraishi”) in view of Akiyama, further in view of Doherty. Claims 5-6 and 11-12 were rejected under 35 U.S.C. §103 as being unpatentable over Shiraishi in view of Akiyama, further in view of Doherty, further in view of Muramoto (U.S. Patent No. 6,798,536, hereinafter “Muramoto”).

The proposed combination of Akiyama, Doherty, Shiraishi and Muramoto fails to disclose the limitations of claim 1 regarding “said PDL data creating process includes: a representative point setting step for setting positions of representative points with respect to areas on the image data corresponding to respective ink key areas of a printing machine, for use in controlling color tones in images to be printed; and a representative point information storing step for storing representative point information including information on the positions of said

representative points set per respect to areas on the image data corresponding to respective ink key areas of a printing machine”

While the Examiner admitted that Akiyama fails to explicitly disclose representative points setting means for setting representative points with respect to areas on the image data corresponding to respective ink key areas of a printing machine for use in controlling color tones in images to be printed, the Examiner asserted that Doherty discloses representative points setting means with respect to areas on the image data corresponding to respective ink key areas of a printing machine for use in controlling color tones in images to be printed. Doherty measures the density spectrum $D_M(\lambda)$ on printed product at respective points corresponding to those points which were previously measured on the printing copy. Doherty sets respective points on the printed product corresponding to those points on the print copy and measures density spectra of the respective points on the printed product and measuring points of the ink zones on the printed product. (column 5, lines 26-40 and Blocks 7 and 8 in figure 1) The respective points, however, are set **not on area on the image data, but on the printed product**. In addition, the respective points are **not related to respective ink key areas of a printing machine, but corresponds to the points on the print copy**. In contrast, claim 7 requires “representative points setting means” to “set[ting] **representative points with respect to areas on the image data corresponding to respective ink key areas of a printing machine** for use in controlling color tones in images to be printed.”

While the Examiner admitted Akiyama fails to explicitly disclose “storing representative information including information on positions of said representative points set with respect to areas on the image data corresponding to respective ink key areas of a printing machine,” the Examiner averred that Doherty discloses “storing representative information including

information on positions of said representative points set with respect to areas on the image data corresponding to respective ink key areas of a printing machine” with reference to the storage device in Block 1 and descriptions on column 3, line 4-column 5, line 64. As addressed above, Doherty’s respective points are set **not on area on the image data, but on the printed product** and the respective points are **not related to respective ink key areas of a printing machine, but corresponds to the points on the print copy**. Therefore, Doherty’s storage device cannot store “information on positions of the representative points set with respect to areas on the image data corresponding to respective ink key areas of a printing machine.”

Furthermore, the Examiner admitted that Akiyama fails to explicitly disclose “in said controlling color tones, an ink feed rate is controlled, based on differences between color tones at the representative points and target color tones, by comparing image data of the prints produced and said representative points.” The Examiner, however, averred that Doherty discloses “ in said controlling color tones, an ink feed rate is controlled, based on differences between color tones at the representative points and target color tones, by comparing image data of the prints produced and said representative points.” Doherty compares the adjustment values X_K' , X_C' , X_M' and X_Y' for ink feed in the individual printing units with the respective reference values X_K , X_C , X_M , X_Y' , which are determined depending upon press design and printed ink film, to adjust positions of ink keys. (column 4, lines 51-57 and column 5, lines 49-63) **The adjustment values X_K' , X_C' , X_M' and X_Y' and the reference values X_K , X_C , X_M , X_Y' do not represent color tones, but an operational vector component which is obtained from the relationship between the measured density spectrum $D_1(\lambda)$ and the density spectrum $P(\lambda)$ of the color of the paper.** (Equations(1)) In contrast, in the claimed invention, per claim 7, the ink feed rate is controlled **based on differences between color tones at the representative points and target color tones.**

In addition, Shirashi and Muramot, which were cited for platemaking creating fails to cure deficiencies of Akiyama and Doherty.

The proposed combination of Akiyama, Doherty, Shiraishi and Muramoto fails to disclose the limitations of claim 1 regarding “said platemaking data creating process includes: an information receiving step for receiving said representative point information along with said PDL data; a platemaking data creating step for creating said platemaking data based on said PDL data; and a representative point information correcting step for correcting said representative point information, and for storing the corrected representative point information corresponding to the created platemaking data.”

Shirashi’s binary image data generated by image data processing device, based on which an image on a printing plate is recorded, **neither includes nor make use of information on any representative points with respect to areas on the image data corresponding to respective ink key areas.** In addition, the image on a printing plate is not corrected based on any information on any representative points. Turning to Muramoto, Muramoto’s PDL data, which is developed into image data in the form of C, M, Y, K, **neither make use of nor include information on the representative points with respect to areas on the image data corresponding to respective ink key areas.** In addition, the image data in the form of C, M, Y, K are not corrected based on any information on any representative points. In contrast, claim 1 requires the “said platemaking data creating process” to **“receive[ing]e said representative point information along with said PDL data,” to “correct[ing] said representative point information, and to “stor[ing]e the corrected representative point information** corresponding to the created platemaking data.”

Akiyama and Doherty, which were cited for the PDL data creating process, fails to cure deficiencies of Shiraishi and Muramoto.

Accordingly, as each and every limitation must be disclosed or suggested by the cited prior art references in order to establish a *prima facie* case of obviousness (*see*, M.P.E.P. § 2143.03) and for at least the foregoing reasons the combination of Akiyama, Doherty, Shirashi and Muratomo fails to do so, it is respectfully submitted that claim 1 and claims dependent thereupon are patentable over the combination of Akiyama, Doherty, Shirashi and Muratomo.

Independent claim 7 recites substantially the same limitations as claim 1 as follows:

“said PDL data creating unit includes:

a representative point setting means for setting positions of representative points per respective ink key areas of a printing machine for use in controlling color tones in images to be printed;

information storage means for storing, along with said PDL data, representative point information including information on the positions of said representative points set per areas on the image data corresponding to respective ink key areas of a printing machine; and

said platemaking data creating unit includes:

an information receiving means for receiving said representative point information along with said PDL data from said PDL data creating unit;

a platemaking data creating means for creating said platemaking data based on said PDL data,

a representative point information correcting means for correcting said representative point information, and for storing the corrected representative point information corresponding to the created platemaking data.”

Therefore, claim 7 and claims dependent thereupon are patentable over the combination of Akiyama, Doherty, Shiraishi and Muramoto.

Conclusion

In view of the above amendments and remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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